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I.S. EN ISO 712:2009

# Cereals and cereal products - Determination of moisture content - Reference method (ISO 712:2009)

## I.S. EN ISO 712:2009

*Incorporating amendments/corrigenda issued since publication:*

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## Cereals and cereal products - Determination of moisture content - Reference method (ISO 712:2009)

Céréales et produits céréaliers - Détermination de la teneur  
en eau - Méthode de référence (ISO 712:2009)

Getreide und Getreideerzeugnisse - Bestimmung des  
Feuchtegehaltes - Referenzverfahren (ISO 712:2009)

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## **Foreword**

This document (EN ISO 712:2009) has been prepared by Technical Committee ISO/TC 34 "Food products" in collaboration with Technical Committee CEN/TC 338 "Cereal and cereal products" the secretariat of which is held by AFNOR.

This European Standard shall be given the status of a national standard, either by publication of an identical text or by endorsement, at the latest by May 2010, and conflicting national standards shall be withdrawn at the latest by May 2010.

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**Cereals and cereal products —  
Determination of moisture content —  
Reference method**

*Céréales et produits céréaliers — Détermination de la teneur en eau —  
Méthode de référence*



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## **Foreword**

ISO (the International Organization for Standardization) is a worldwide federation of national standards bodies (ISO member bodies). The work of preparing International Standards is normally carried out through ISO technical committees. Each member body interested in a subject for which a technical committee has been established has the right to be represented on that committee. International organizations, governmental and non-governmental, in liaison with ISO, also take part in the work. ISO collaborates closely with the International Electrotechnical Commission (IEC) on all matters of electrotechnical standardization.

International Standards are drafted in accordance with the rules given in the ISO/IEC Directives, Part 2.

The main task of technical committees is to prepare International Standards. Draft International Standards adopted by the technical committees are circulated to the member bodies for voting. Publication as an International Standard requires approval by at least 75 % of the member bodies casting a vote.

Attention is drawn to the possibility that some of the elements of this document may be the subject of patent rights. ISO shall not be held responsible for identifying any or all such patent rights.

ISO 712 was prepared by Technical Committee ISO/TC 34, *Food products*, Subcommittee SC 4, *Cereals and pulses*.

This fourth edition cancels and replaces the third edition (ISO 712:1998), which has been technically revised.

# Cereals and cereal products — Determination of moisture content — Reference method

## 1 Scope

This International Standard specifies a routine reference method for the determination of the moisture content of cereals and cereal products.

This International Standard applies to: wheat, rice (paddy, husked and milled), barley, millet (*Panicum miliaceum*), rye, oats, triticale, sorghum in the form of grains, milled grains, semolina or flour.

The method is not applicable to maize and pulses.

NOTE For moisture content determination in maize, see ISO 6540<sup>[5]</sup>; and for pulses, see ISO 24557<sup>[7]</sup>.

## 2 Terms and definitions

For the purposes of this document, the following terms and definitions apply.

### 2.1

#### **moisture content**

mass loss undergone by a product under the conditions specified in this International Standard

NOTE Moisture content is expressed as a percentage.

## 3 Principle

If necessary, a laboratory sample is ground, after conditioning, if required. A test portion is dried at a temperature between 130 °C and 133 °C, under conditions which enable a result to be obtained which corresponds to that obtained by the absolute method described in Annex B.

## 4 Apparatus

**4.1 Analytical balance**, capable of weighing to an accuracy of  $\pm 0,001$  g.

**4.2 Grinding mill**, having the following characteristics:

- a) made of material which does not absorb moisture;
- b) easy to clean and having as little dead space as possible;
- c) enabling grinding to be carried out rapidly and uniformly, without appreciable development of heat (difference of temperatures before and after grinding smaller than or equal to 5 °C);

NOTE A grinding mill fitted with a cooling device can comply with this requirement.

- d) tightness to air to avoid water exchange between sample and external air;
- e) adjustable so as to obtain particles of the dimensions indicated in Table 1.

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